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Cover Photo. Stand development after the first silvicultural clearcut on the Allegheny National Forest more than seven decades ago.

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Bent Creek Demonstration Program

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Abstract.—Bent Creek Research and Demonstration Forest scientists have transferred the results of research on the ecology and management of Southern Appalachian hardwoods since 1925. Since 1989, a full-time technology transfer specialist has led demonstration efforts. The demonstration program was designed to quickly transfer research results to interested users, and free-up scientists to conduct research. Tours of the experimental forest, a large photo point program, customized demonstration publications, short course offerings, and publications are the focal points of the Bent Creek program.

INTRODUCTION

Technology transfer is an essential task of any U.S. Forest Service Research work unit. Projects vary widely in their approach to the demonstration task. Most units prefer to assign technology transfer responsibilities to individual panelled scientists. Since the scientist is intimately familiar with his or her research, little is lost translating research findings to interested groups. A few research work units have filled technology transfer specialist positions; enabling scientists to spend more time conducting research.

Bent Creek Research and Demonstration Forest scientists found themselves spending vast amounts of time transferring research results in the late 1980's. Since the experimental forest is located less than a 30 minute drive from Southern Station Headquarters, visiting scientists frequently took time to tour the Bent Creek Experimental Forest. School groups, managers, and the general public were frequent guests.

The project leader decided to fill a full-time technology transfer specialist in 1989, to help meet the growing demonstration need. Bent Creek scientists have remained active in transferring information, but the day- to- day tasks are now performed by a specialist.

DEMONSTRATION PROGRAM COMPONENTS

There is nothing unique about the way information is passed along to users at Bent Creek. However, the research work unit enjoys an unusually strong emphasis on technology transfer. Specific activities include:

- tours
- demonstration cuttings
- photo points
- slide shows
- training
- custom literature searches
- personal contacts
- publications

Tours

About 800-1000 people per year tour Bent Creek as part of 30-40 groups. Target user groups include a wide array of students. Most of the forestry schools in the southeastern U.S. send both graduate and undergraduate students to Bent Creek annually. State forestry groups and industrial foresters use Bent Creek as an outdoor classroom for their personnel. Scientists and managers from eastern Europe and Asia have been visiting frequently since the late 1980's. Virtually all major research and forest management organizations in the southeastern United States have sent personnel to take the Bent Creek tour.

Visitors are drawn by the side-by-side array of demonstration forest cuttings. Since Southern Appalachian hardwoods respond quickly to disturbance, keeping the demonstrations fresh is a challenge. We are constantly planning for the next round of cuttings at Bent Creek.

Photo Points

We have installed photo points in all of the Bent Creek demonstration cuttings, taking fresh photos once every 3 years. We also maintain long-term photo points, dating back to the late 1800's. An example of this is the photo series of the Carl Schenk white pine orchard, located on the Biltmore estate. Photos taken in the 1880's clearly show severely eroded soils, typical of western North Carolina a century ago. Bent Creek scientists periodically took photographs of the 1899 eastern white pine plantation located on these eroded side hills. Photographs have chronicled the progress of this stand, the oldest white pine plantation in the southeastern United States.

Training

Bent Creek sponsors a wide variety of forest management and science training sessions, including two major offerings: environmental sciences training targeted at middle school teachers, and a hardwood silviculture shortcourse, designed for state and industrial foresters.

Teacher Training: Bent Creek personnel cooperate with Asheville-Buncombe Technical College and Western Carolina University staff to offer a two week long intensive shortcourse in environmental sciences. Our hope is that newly trained teachers will approach environmental education objectively, passing along sound science to their students.

Hardwood Silviculture Shortcourse: Every Bent Creek scientist, plus several outside speakers, focus their efforts on this annual training session. The shortcourse is designed to provide essential tools for silvicultural prescription development, including:

[1]Forester, Bent Creek Research and Demonstration Forest, Southern Research Station

- disturbance history
- site classification
- forest health
- economics
- wildlife
- stand dynamics
- hardwood autecology and synecology
- hardwood regeneration
- intermediate stand treatments

Future Training Efforts: We are planning to offer an advanced hardwood silviculture shortcourse. This new offering will be a hands-on, week-long series of exercises enabling participants to prepare sound prescriptions at both the stand and forest level.

Publications

The Bent Creek staff has created a variety of brochures, mostly targeted at the general public. A more recent endeavor is the development of focused literature reviews, which will provide the background information needed for topical brochures.